

## ILLICIT DRUG USE IN TEENAGERS AND YOUNG ADULTS

Dear Editor:

I found the review article by Ali et al, "Early Detection of Illicit Drug Use in Teenagers" [*Innov Clin Neurosci*. 2011;8(12):25–34], to be quite informative and interesting. This article discussed in broad terms the risk factors and warning signs regarding illicit drug use in this subpopulation. I would like to add some additional comments to what the authors reviewed in their article.

First, I would like to mention a long-term epidemiology study, "Monitoring the Future," which surveyed the trend of legal and illicit drug use in American adolescents, college students, and adults for more than 30 years. The authors of this study mention that one of the main factors that plays a role in the comeback of certain illicit drugs after their popularity fades is "generational forgetting," which occurs when there is a decreased perceived risk of certain substances.<sup>1</sup>

Second, I would like to emphasize the importance that clinicians become aware of the increased production of alcoholic beverages, sold as energy drinks, with high caffeine content. These beverages are popular among teenagers and young adults, and their use has resulted in legal, ethical, and health concerns among this population.<sup>2</sup>

One beverage that recently received a lot of attention is "Four Loko," which contains the four ingredients alcohol (6–12% by volume), caffeine, taurine, and guarana, hence the name "Four Loko." The combination of the constituents, especially the mixture of alcohol and the caffeine, poses a serious health concern. The caffeine content of the alcoholic beverage counteracts the perceived depressing

effect of the alcohol. When the caffeine effect wears off, the person then experiences the full effect of the alcohol. The delayed perceived effect of drunkenness has been shown to lead to increased consumption of alcohol before the caffeine effects wear off.<sup>2</sup> This public health concern led the United States Food and Drug Administration (FDA) to issue warnings to the manufacturer, which subsequently led to the removal of the caffeine from the beverage by the manufacturing company.

I would also like to remind clinicians of the substance gamma hydroxybutyric acid (GHB), known on the streets as "liquid ecstasy." GHB is usually consumed as an alcohol beverage and its use is often seen in teenagers and young adults. GHB has several adverse effects of which the more serious are seizures, loss of consciousness, and respiratory depression, leading to death in some cases. GHB has been classified by the United States Drug Enforcement Agency (DEA) as a "predatory drug," along with rohypnol and ketamine, and has been implicated in sexual assault cases. Like rohypnol and ketamine, GHB causes significant memory impairment, and often victims who have consumed the substance have no recollection of the assault.<sup>3</sup>

Another drug of which clinicians should be aware is one that has been prevalent among teens and young adults over the last few years in the United States, and even longer in Europe—synthetic cannabis. This produce was initially marketed as a smokeable herbal product. In March 2011, five chemicals contained in synthetic cannabis were placed on emergency scheduling for the next 12 months and designated as Schedule 1 drugs by the DEA. Synthetic cannabis has similar effects

as natural cannabis, hence the street name "fake pot." It is also known as "K2" and "Spice." One very concerning property of the substance is that it lacks an antipsychotic chemical similar to cannabidiol, which is found in natural cannabis. As a result, synthetic cannabis has an increased risk of causing psychotic symptoms in comparison to natural cannabis.<sup>4,5</sup>

As recommended by Ali et al, a comprehensive multidisciplinary approach involving parents, educators, community leaders, government agencies, and physicians, particularly primary health physicians, would be required to adequately address illicit substance use in teens and young adults. The need for continued research in this field is necessary, but monitoring changing trends in drug use cannot be overemphasized.

### References:

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With regards,

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